VDH VIRGINIA DEPARTMENT OF HEALTH
Protecting You and Your Environment
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Frequently Asked Questions About Mercury

What is mercury and where do you find it?

Mercury is a naturally occurring metal, which is widespread and persistent in the environment. It exists in three forms: elemental or metallic mercury, inorganic mercury, and organic mercury. Most of the mercury in the atmosphere is elemental mercury vapor; most of the mercury found in water, soil, plants, and animals is either inorganic or organic (methylmercury). The majority of mercury found in fish is methylmercury, which tightly binds to protein in all fish tissue. Methylmercury is of particular health concern because it can build up to levels in fish tissue that can be toxic to people.

Where is mercury used?

Elemental mercury is used in thermometers, thermostats, switches, barometers, batteries, dental amalgam, and other products. Inorganic mercury compounds are commonly used in electrical equipment (e.g., switches and lamps), and in medicinal and skin care products (e.g., imported skin lightening creams). Organic mercury compounds are used in industry as pigments in paints and as fungicides.

Who is exposed to mercury?

Anyone may be exposed to mercury. Eating fish is the principal way that people are exposed to methylmercury. People may also be exposed to other forms of mercury from breathing contaminated workplace air or through skin contact, particularly in occupations involving chemical or dental work. Exposure may also occur by breathing vapors in air from spills, incinerators, and industries that burn mercury-containing fuels.

How can mercury affect my health?

The nature and extent of health effects from exposure to mercury will depend on the amount to which a person is exposed. The nervous system is sensitive to all forms of mercury. Exposure to high levels of metallic, inorganic, or organic mercury can permanently damage the brain, kidneys, and developing fetus. Effects on brain functioning may result in irritability, shyness, tremors, changes in vision or hearing, and memory problems

Can mercury affect children and pregnant women?

Though mercury can affect adults, young children and developing fetuses are more sensitive. Mercury passes from mother to fetus through the placenta and from the circulating blood stream into the brain. Mercury can also be excreted in breast milk. The fetus may have higher levels of mercury in the blood than that of the mother. Fetuses exposed to elevated levels of mercury can result in brain and other developmental effects. Children exposed to elevated levels of mercury may develop nervous and digestive system problems, in addition to kidney damage.

Can mercury exposure cause cancer?

There are no studies that definitely show that mercury causes cancer in humans or animals.

Is there a medical test to determine whether I have been exposed to mercury?

Tests are available that measure the amount of mercury in blood, urine, breast milk, or hair samples. Some of these tests do not determine the form of mercury to which one is exposed. Mercury in urine is used to test for exposure to metallic mercury vapor and to inorganic forms of mercury. Measurement of mercury in whole blood is used to monitor exposure to methylmercury.

What is the treatment for elevated mercury levels?

The primary treatment for elevated mercury levels is to reduce or prevent exposure to mercury. If you are concerned about possible exposure to mercury, contact your health care provider or the American Association of Poison Control Centers at 1-800-222-1222.

How can I reduce or prevent exposure to mercury?

Carefully handle and dispose of products that contain mercury, such as thermometers and compact fluorescent light bulbs. Because it can potentially vaporize, do not vacuum spilled mercury. If a large amount of mercury has been spilled or identified, contact your local health department.

Do not purchase or use imported, homemade skin-lightening creams, and do not store them in your home.

Finally, be mindful of local fish consumption advisories in your area. The Virginia Department of Health (VDH) guideline for issuing a fish consumption advisory for mercury is 0.5 ppm.
http://www.vdh.virginia.gov/Epidemiology/dee/PublicHealthToxicology/Advisories/

Are compact fluorescent light bulbs (CFLs) safe to use in my home?

CFLs are safe to use in your home. No mercury is released when the bulbs are in use and they pose no danger to you or your family when used properly. CFLs do, however, contain approximately 4-5 mg of mercury (the amount equivalent to the tip of a pen), and thus should be managed responsibly when they burn out. Because of the small amount of mercury in the CFLs, if a CFL bulb breaks, following proper clean-up and disposal guidelines will minimize any risk from exposure. http://www.epa.gov/mercury/spills/index.htm

Where can I get more information on mercury?

For additional information, please visit http://www.atsdr.cdc.gov/substances/toxsubstance.asp?toxid=24.

You may also call your local health department if you have questions or concerns about mercury. A directory of local health departments is located at http://www.vdh.virginia.gov/LHD/index.htm.